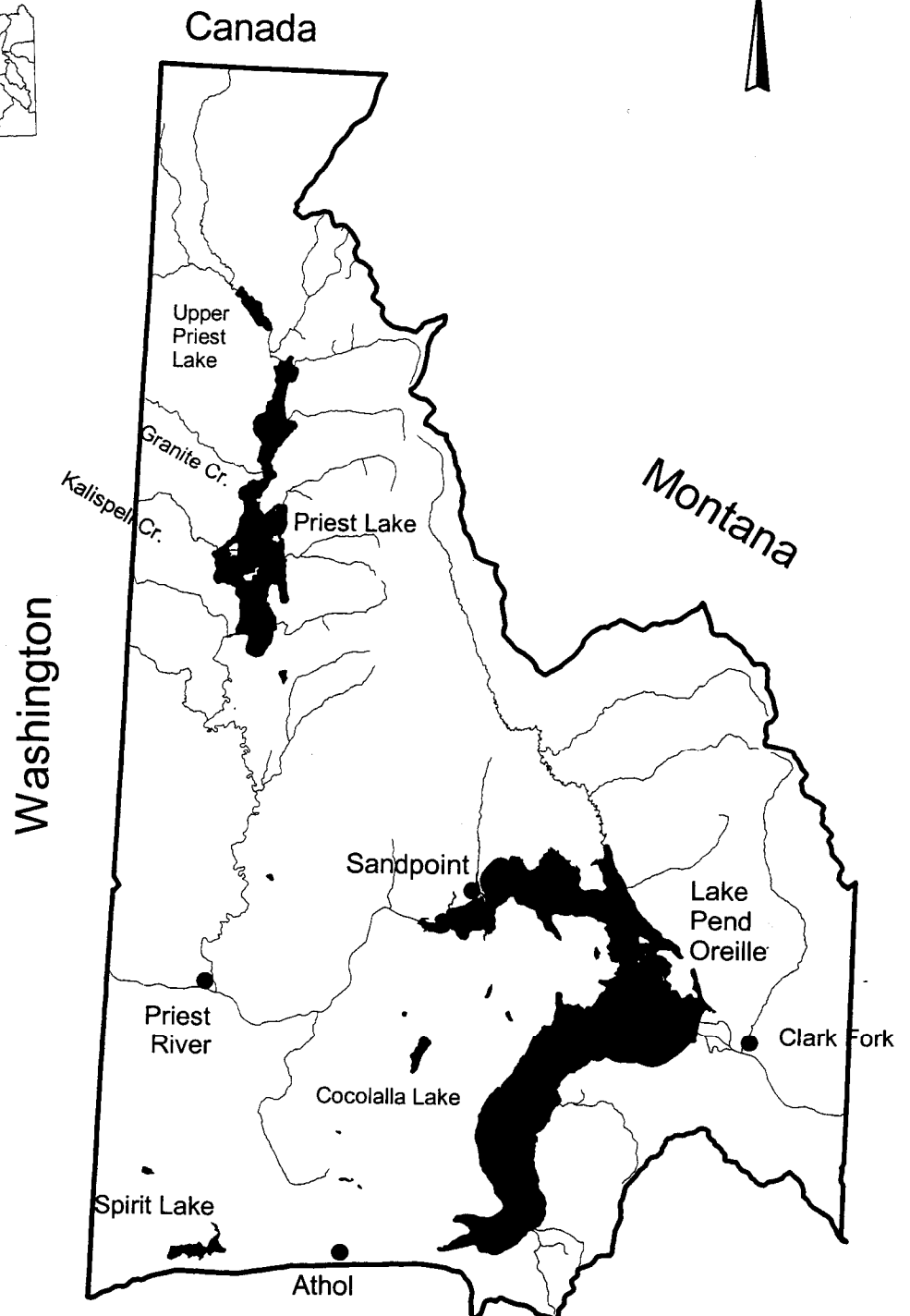


# Pend Oreille River Drainage



4 0 4 8 Miles

A horizontal scale bar with alternating black and white segments. The segments are labeled 4, 0, 4, and 8 Miles.

## 2. PEND OREILLE RIVER DRAINAGE

### A. Overview

The Pend Oreille River drains about 24,200 square miles of land in western Montana and the Panhandle of northern Idaho. Most of the 2,133 square miles of the drainage within Idaho lies in Bonner County. Major tributaries of the Pend Oreille drainage include the Clark Fork, Flathead, Bitterroot, Blackfoot and St. Regis rivers in Montana and the Priest and Pack rivers and Lightning Creek in Idaho.

Pend Oreille Lake is the largest natural lake in Idaho covering 85,960 surface acres with a shoreline length of 111 miles. The lake basin is deep and steep-sided with a maximum depth of 1,152 feet and mean depth of 538 feet. The combined surface area of Pend Oreille Lake and the backwaters of Albeni Falls Dam, located on the Pend Oreille River 26 miles downstream of the lake, is 94,720 acres.

Priest and Upper Priest lakes are glacial lakes connected by a shallow winding channel called the Thorofare. Priest Lake has a surface area of about 23,360 acres with a maximum depth of 369 feet and mean depth of 123 feet. Upper Priest Lake is accessible only by boat or foot trail, covers about 1,400 surface acres and has a maximum depth of 103 feet.

Spirit Lake has a surface area of 1,477 acres and a maximum depth of about 90 feet.

There are also many smaller lowland lakes in the drainage and numerous alpine lakes in the Selkirk and Cabinet mountains.

Westslope cutthroat trout, bull trout, pygmy whitefish and mountain whitefish are the only salmonids native to the Pend Oreille drainage in Idaho. Prior to the 1940s, cutthroat trout were the most frequently caught fish in the Pend Oreille system. Accounts of good fishing, long stringers of 12"-16" fish, and tributaries full of spawners were common in the late 1800s and into the early 1900s.

Bull trout in Priest and Pend Oreille lakes fed on the whitefish, but did not obtain an unusually large size. Spawning runs of mountain whitefish were harvested in Priest Lake tributaries and also supported a significant commercial fishery on Pend Oreille Lake.

Introduction of exotics has played both a positive and negative role in shaping the fisheries of the Pend Oreille drainage. Lake Superior whitefish were introduced to Pend Oreille Lake in 1889. Eastern brook trout were widely distributed in the early 1900s and were successful in outcompeting and eventually replacing native cutthroat in some watersheds. Lake trout were introduced into Priest and Pend Oreille lakes in 1925, but provided little in the way of a sport fish in either system during the first half of the 20<sup>th</sup> century.

During the winter flood of 1933, kokanee became established in Pend Oreille Lake by moving naturally into the system from Flathead Lake in Montana. Kokanee had been

stocked in Flathead Lake in 1916 from Lake Whatcom in Washington. Kokanee salmon were transplanted from Pend Oreille Lake to Spirit Lake in 1937 and Priest Lake in the 1940s. Kokanee established themselves quickly in each of these lake systems, displacing native mountain whitefish in the open water habitat. In Pend Oreille Lake, kokanee supported a major sport fishery with historical harvests topping one million fish.

Kokanee also provided a new forage base for native and introduced fish predators. A significant trophy fishery for record class lake trout and bull trout developed in Priest Lake in the 1950s. In Pend Oreille Lake, Kamloops rainbow trout (Gerrard strain) from Kootenay Lake, British Columbia, were introduced in 1941 and 1942, producing a world record 37 pound rainbow trout in 1947. A world record 32 pound bull trout was taken from Pend Oreille Lake in 1949. Pend Oreille Lake has been widely recognized as a major trophy fishery producing dozens of rainbow in the 20+ pound range annually. The combined kokanee and trophy trout fishery in Pend Oreille Lake has made it one of the most important and unique fisheries in the United States.

The successful establishment of kokanee in Spirit Lake created what once was the most productive kokanee salmon fishery in Idaho, producing the most pounds of kokanee harvested per acre of lake. However, in the 1990s, the size of fish in the catch declined when periodic weak year classes were overharvested resulting in near elimination of the older fish, leaving the younger, but smaller fish. Weak year classes of kokanee may have been caused by loss of shoreline spawning habitat. Lower lake levels in recent history may be caused by "leaks" in this sealed bottom lake. Fishing regulations were modified in 2000 to reduce kokanee harvest and supplemental stocking of fry was initiated to enhance recruitment.

*Mysis relicta*, the opossum shrimp, were introduced to Priest and Pend Oreille lakes in the mid 1960s in an effort to enhance food for kokanee. That occurred on a limited basis and record sized kokanee were caught in Priest Lake during the early 1970s. More importantly, Mysis provided an excellent food source for lake trout, causing increased productivity and a population explosion. The kokanee population collapsed very rapidly in the late 1970s due to lake trout predation, and several years of stocking millions of hatchery fry were not successful at restoring the kokanee fishery. Lake trout now dominate the system and provide mainly a yield fishery for relatively small fish (17-22 inches), with an occasional trophy fish over 20 pounds. Lake trout in Pend Oreille Lake have not responded to the presence of Mysis as dramatically as in Priest Lake. Mysis shrimp also utilize the same food supply as kokanee and have caused a shift in the abundance and species composition of zooplankton, although no direct competition for a limited food supply has been shown.

Although the establishment of lake trout and brook trout created fisheries for new species, fisheries for native westslope cutthroat and bull trout were reduced or replaced. Lake trout pose the greatest risk to bull trout in the Priest Lake system through predation and competition. Upper Priest Lake is currently being managed as the last stronghold for

native fish in the Priest system, but lake trout are increasing in abundance. We have demonstrated that lake trout can be suppressed in Upper Priest Lake with intensive gill netting, but the abundant population of lake trout in Priest Lake is resulting in quick recolonization of Upper Priest Lake. Efforts to exclude lake trout movement through the Thorofare are being explored.

During this planning period, we will also examine the potential to shift management emphasis in Priest Lake from lake trout, to a more traditional fishery consisting of native cutthroat, bull trout and kokanee. Cutthroat and bull trout would provide catch-and-release fishing opportunity, but they could not replace the harvest opportunity that lake trout now provide. Production of wild cutthroat and bull trout for Priest Lake is much reduced from historic levels due to habitat degradation and the presence of brook trout in spawning and rearing streams. Kokanee provide the best alternative to replacing the existing lake trout harvest fishery in Priest Lake, while also being compatible with native fish management goals. Reestablishment of a kokanee fishery is not realistic during this planning period however. Lake trout would need to be significantly reduced and liberalized fishing regulations will be evaluated during this planning period. Commercial harvest may also be necessary to significantly reduce lake trout. Although a remnant kokanee population still persists in Priest Lake, significant numbers of kokanee fry would need to be stocked over a several year period to reestablish a fishery. However, there will be no surplus hatchery kokanee fry for Priest Lake until the danger of a kokanee collapse in Pend Oreille Lake has passed.

Lake trout have apparently increased in abundance in Pend Oreille Lake during the past decade as evidenced by a significant increase in lake trout catch, harvest and increase in catch per unit effort (CPUE, expressed as the number of fish/hour). CPUE has increased from 1 fish per more than 1,000 hours of effort in 1991, to 1 fish per less than 100 hours of effort in 2000. Harvest regulations on lake trout were liberalized in 1992 to prevent an increase in lake trout similar to what Priest Lake experienced. In 2000, a year round season and no limit were implemented. Additional methods of lake trout suppression will be considered if lake trout numbers are not controlled by angler harvest.

Brook trout currently inhabit many tributary streams formally utilized for spawning and rearing by native cutthroat and bull trout. Brook trout/bull trout hybrids have become more numerous in the Priest Lake system in recent history. Hybrids tend to be sterile, or at least less viable, causing the loss of valuable genetic material in depressed bull trout populations. Brook trout will be removed where their presence poses risks to native species, to the greatest extent possible with available funding.

Historical overharvest, the impact of landuse practices such as logging, farming residential development and roading and the construction of hydroelectric dams have taken a toll on the fisheries as the Pend Oreille drainage has been settled and developed. Even by the 1950s, the annual harvest of both cutthroat and bull trout declined in Priest and Pend Oreille lakes. Restrictive regulations have been successful in restoring cutthroat populations if habitat is in good shape and competition and predation from introduced species is minimal. Despite restrictive regulations, the cumulative impacts of land use development and introduced species has reduced native cutthroat populations to a remnant of their former abundance in the rivers and lakes of the Pend Oreille drainage.

Bull trout are less resilient than cutthroat and much more susceptible to the impacts of habitat degradation than other species. In Priest Lake, bull trout have declined to very low levels and may be on the verge of demographic extinction. Bull trout still persist in Upper Priest Lake, but at very low levels. Poor habitat condition in many Priest Lake tributaries may be contributing to the abundance and wide spread distribution of brook trout.

The bull trout population in Pend Oreille Lake declined dramatically when hundreds of miles of spawning and rearing tributaries were blocked by the construction of Cabinet Gorge Dam on the Clark Fork River in 1952. The population has remained relatively stable the past 40 years, but deteriorating habitat conditions in the remaining accessible tributaries are placing the population at risk. The Lake Pend Oreille Bull Trout Conservation Plan, U. S. Fish and Wildlife Service Biological Opinion, and Federal Energy Regulatory Commission dam relicensing requirements will help focus restoration efforts. To reconnect bull trout populations in the basin, consideration is being given to providing fish passage at both the Corp's Albeni Falls Dam and the Pend Oreille Utility District's Box Canyon Dam on the Pend Oreille River.

The relicensing of Avista's (formerly Washington Water Power) Cabinet Gorge and Noxon dams on the Clark Fork River in 1999 provides the opportunity to mitigate for construction and inundation losses and ongoing operational impacts to Pend Oreille Lake and the Clark Fork River over the next 45 years. Similar mitigation efforts need to be made for Albeni Falls Dam. Mitigation efforts will be focused on habitat enhancement in the Clark Fork River and Pend Oreille tributaries, and on potential fish passage over Cabinet Gorge Dam. Minimum flows have already been increased from 3,000 cfs to 5,000 cfs in the Clark Fork River. Efforts are underway to enhance instream habitat by watering a one-mile side channel and adding structure to the river. Avista is also working to solve high dissolved gas levels during spill periods. Additional enforcement and educational efforts were also part of the Avista settlement to address intentional poaching of large spawning bull trout in streams, and angler misidentification in the lake fishery. Harvest of bull trout has been closed in the entire state of Idaho since 1996. The IDFG goal from all these efforts is to restore a viable harvest fishery for bull trout in the Pend Oreille system.

The kokanee population of Pend Oreille Lake has also declined dramatically from historic levels due to habitat related impacts. Historically, the adult population of around five million kokanee supported a sport and commercial fishery averaging one million fish. In recent history, adult kokanee populations and the fishery they support have been 20 percent or less of historical levels. Cabinet Gorge Dam blocked a run of 100,000 tributary spawning kokanee, but the vast majority of kokanee in Lake Pend Oreille are lake shore spawners and the population was not impacted by the loss of tributary spawning habitat.

Albeni Falls Dam, constructed in 1952, 26 miles below the lake on the Pend Oreille River, modified the natural annual hydrograph to tame spring floods and produce electricity, but in the process eliminated virtually all the shoreline spawning areas for kokanee. When the lake was managed primarily for flood control prior to 1966, deep water spawning beds produced good numbers of kokanee even when the water was dropped after the kokanee had spawned. Starting in 1966, however, the lake was drawn down an additional five feet in most years to generate additional hydropower. This water management strategy has left the most productive spawning beds dewatered and the few remaining spawning areas sedimented in, reducing spawning success.

The kokanee population had declined to record low levels by 1997. Record high flows in the Clark Fork River that year and subsequent losses of kokanee from Pend Oreille Lake reduced the kokanee population even further. Predation by rainbow, lake trout and bull trout would likely collapse the kokanee population if drastic measures weren't taken. In 2000, the kokanee fishery was closed to increase spawning escapement and limits on rainbow and lake trout were liberalized to encourage harvest and reduce predation on younger kokanee. Only time will tell if this controversial attempt at preventing a kokanee collapse will be successful.

Construction of the Cabinet Gorge Hatchery in 1986 was an attempt to mitigate for dam related losses and the impact of Mysis shrimp, and was intended to replace the wild kokanee population of Lake Pend Oreille with hatchery fish. Hatchery kokanee have kept the population from collapsing, but it was unrealistic to expect up to nearly 18 million hatchery fry (maximum hatchery production) to replace over 200 million wild fry. Restoration of the fishery will depend on reestablishing the wild component of the kokanee population.

The trophy Kamloops rainbow trout fishery in Lake Pend Oreille will be deferred until the kokanee population is capable of supporting additional predation. The rainbow fishery will be rebuilt primarily through changes in fishing regulations. Limited supplementation with pure strain Gerrard rainbow from Kootenay Lake British Columbia may be utilized to infuse new genetic material into the Pend Oreille rainbow population. Genetic analysis of a sample of rainbow trout in 1984 indicated that Pend Oreille rainbow trout had changed from the original Kamloops rainbow introduced in 1941. About 16% of the genetic material was from coastal rainbow and 4% from cutthroat trout, and a shift to earlier maturing fish was noted. Kootenay and Pend Oreille Lake rainbow achieve their trophy size from a combination of late maturity that is greatly influenced by genetics, and an abundant diet of kokanee.

The current 11.5 foot annual winter drawdown caused by Albeni Falls Dam inhibits establishing a viable sport fishery in the Pend Oreille River. Impoundment of the river has created a warm slack water reservoir from June through September and a cold flowing river from October through May. Over 40 years of artificially high water have also eliminated the natural vegetative cover along the shoreline, causing severe erosion and additional impacts to fish habitat. Habitat conditions are not suitable for the establishment of either a trout or warmwater fishery. Salmonids use the river seasonally, but brown trout are the only species found in very low abundance on a year round basis. A higher winter pool level would provide critical overwinter habitat for bass and other warmwater species. It is likely a productive warmwater fishery could be established, similar to the river below Albeni Falls Dam, with a change in water management.

The introduction of channel catfish, tiger muskie and bluegill sunfish has diversified the warmwater fishery in several lakes. Other warmwater game fish in the Pend Oreille drainage include largemouth and smallmouth bass, northern pike, black crappie, yellow perch, pumpkinseed sunfish and bullhead.

Thirteen mountain lakes in the lower Selkirk and Cabinet ranges are stocked with cutthroat trout fry on a rotating basis. Stocking densities have been adjusted to maximize fish growth at a given lake elevation. Only cutthroat trout fry are used to stock mountain lakes to reduce potential impacts to native fish populations downstream. Sterile fish will be used when techniques are perfected for westslope cutthroat trout.

Westslope cutthroat or brook trout are present in most of the stocked lakes. A few lakes contain remnant populations of brown trout used in an experiment to reduce stunted brook trout populations.

There are many alpine lakes located in the Pend Oreille drainage that currently do not support fish, either due to natural conditions or because they are no longer stocked. We will maintain these lakes in a fishless condition in order to maintain some natural alpine lake ecosystems for amphibians and invertebrates.

## B. Objectives and Programs

### 1. Objective: Restore a fishable population of bull trout in Pend Oreille Lake.

Program: Implement management for bull trout that would allow limited harvest while protecting stocks.

Program: Once kokanee are restored, shift research emphasis to predator population dynamics and predator/prey interactions to quantify optimal predator/prey management strategies.

Program: Maintain maximum harvest opportunity on lake trout to keep their abundance low. Investigate other methods to remove lake trout if angler harvest cannot suppress lake trout.

Program: Remove brook trout from alpine lakes and tributary streams where their presence poses a risk to bull trout through hybridization, predation or competition.

Program: Publicize the extreme sensitivity of bull trout to habitat degradation. Provide direction to Avista funded habitat protection and enhancement efforts and implement Avista funded mitigation programs. Work to obtain special consideration, protection, and improvement of critical bull trout habitat in land use decisions. Work with the Forest Service, private developers and interested sportsmen's groups to make protection and rehabilitation of fisheries habitat a primary concern in land use decisions

Program: Monitor bull trout spawning escapement and success in Pend Oreille Lake tributaries. Focus available enforcement to reduce poaching losses. Publicize the unique characteristics of this population and their vulnerability to poaching. Work to influence public and court attitudes regarding poaching.

Program: Work with Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Kalispel Tribe, U.S. Forest Service and Corps of Engineers to evaluate creating fish passage at Albeni Falls Dam on the Pend Oreille River.

2. Objective: Restore a fishable population of bull trout in Upper Priest Lake.

Program: Determine the feasibility of excluding lake trout from moving through the Thorofare from Priest Lake into Upper Priest Lake. Implement and evaluate the most efficient and cost effective method.

Program: Suppress lake trout from Upper Priest Lake with intensive gill netting once lake trout are excluded from the Thorofare.

3. Objective: Examine the potential to shift management emphasis in Priest Lake from lake trout, to a more traditional fishery for native cutthroat and bull trout, and a yield fishery for kokanee. This change in management direction for Priest Lake, if it occurs, would not be fully implemented during this planning period.

Program: Significantly reduce lake trout with liberal harvest limits and other means.

Program: Conduct a comprehensive survey of tributary streams of Priest and Upper Priest lakes to identify the abundance and distribution of brook trout and other salmonids, and to evaluate the condition of spawning and rearing habitat.

Program: Remove brook trout from tributary streams where they pose a risk to cutthroat and bull trout to the greatest extent possible with available funding.

Program: Work with the Forest Service and Idaho Department of Lands to improve habitat conditions in tributary streams.

4. Objective: Improve westslope cutthroat trout fisheries on Pend Oreille and Priest lakes.

Program: Restrict harvest on Lake Pend Oreille if harvest is limiting population abundance.

Program: Improve habitat conditions and remove brook trout where long-term exclusion is feasible.

5. Objective: Restore kokanee populations in Pend Oreille Lake to a level that provides a sustainable sport fishery harvest of 750,000 fish and allows for the expansion of the trophy trout and char fishery.

Program: Work with the community, State and Federal legislators and Federal water management agencies to manage the winter pool level of Pend Oreille Lake in a way that will restore shoreline spawning areas for kokanee.

Program: Maintain harvest restrictions on kokanee until survival rates increase, the population increases to sustainable harvest levels, and the risk of a population collapse is eliminated.

Program: Continue to refine and implement management strategies for hatchery supplementation to maximize the survival of hatchery kokanee fry to adult. Evaluate artificial spawning areas.



6. Objective: Restore the trophy rainbow trout fishery of Pend Oreille Lake once kokanee populations are at a level to sustain additional predation.

Program: Modify fishing regulations to achieve trophy trout management goals established by the public.

Program: Enhance the genetic makeup of Pend Oreille Lake rainbow trout by obtaining pure strain Gerrard rainbow trout from Kootenay Lake British Columbia. Work with Montana to avoid introductions of other stocks of rainbow trout in the Clark Fork River reservoirs above Pend Oreille Lake.

7. Objective: Enhance the salmonid fishery of the Clark Fork River.

Program: Seek effective mitigation for the loss of 3 miles of high quality riverine habitat due to inundation caused by operation of the Corps of Engineers Albeni Falls Dam.

Program: Monitor fish population response to the new 5,000 cfs minimum flow. Recommend adjustments in flows if needed.

Program: Monitor Avista efforts to reduce dissolved gas levels in the Clark Fork River during spill periods to levels that are safe for fish.

Program: Work cooperatively with Avista, Montana Fish Wildlife and Parks and U.S. Fish and Wildlife Service to provide up and downstream fish passage at Cabinet Gorge Dam.

Program: Work with Bonner County and Idaho Department of Lands to limit riverbank development to maintain riparian and instream habitat complexity.

8. Objective: Minimize impacts to lake fisheries due to lakeshore encroachment, pollution and nutrient loading.

Program: Work with county planners and Idaho Department of Lands to make protection of fish habitat and water quality a primary concern in land use decisions.

9. Objective: Improve the efficiency of hatchery put-and-take trout stocking programs.

Program: Evaluate rate of return, catch rate, and angler use on put-and-take trout fisheries through a routine data collection system.

Program: Adjust rate, timing or location of trout stocking to improve rate of return to the creel.

Program: Inform anglers of hatchery supported trout fishing opportunities through maps, brochures, media coverage and signing to improve return to the creel.

Program: Discontinue put-and-take trout stocking in waters where a 40% or greater by number or 100% or greater by weight return to the creel cannot be met

by the end of this planning period. Provide alternative fisheries to maintain angling opportunity.

Program: Develop and utilize disease free, sterile stocks of rainbow and cutthroat trout to address concerns about potential impacts to wild trout.

10. Objective: Provide diverse angling opportunities in lowland lakes.

Program: Continue periodic surveys of fish populations to monitor population status and fish growth in relation to physical and biological conditions and fishing regulations. Manage some lakes for specific fish species in order to maximize angling opportunity.

Program: Maintain maximum harvest opportunity for warmwater species and stocked trout in most lakes while providing quality or trophy management fisheries in a few lakes where biological and physical conditions, and public support provide the right set of conditions for special management.

Program: Continue maintenance stocking of tiger muskies and channel catfish to maintain popular fisheries. Evaluate channel catfish harvest to determine if harvest restrictions are needed to maintain this hatchery supported fishery. Establish bluegill sunfish in select waters to diversify panfish populations.

11. Objective: Improve fishing and boating access.

Program: Develop or enhance fishing and boating access areas through easements, cooperative agreements or purchase. Utilize funds to build fishing docks for shoreline anglers.

12. Objective: Curtail illegal introductions of fish. Illegal introductions of exotic fishes threaten the stability of other established fisheries.

Program: Develop informational programs to educate anglers and the public to risks of random introductions of exotic species. Through planning, use enforcement efforts to curtail illegal introductions.

DRAINAGE: Pend Oreille River					
Water	Miles/acres	Fishery			Management direction
		Type	Species present	Management	
Pend Oreille Lake and tributaries	200/85,960	Mixed	Rainbow trout	General/Trophy	Maintain liberal harvest opportunity on rainbow trout to keep their population at a low level until kokanee are restored. Enhance the rainbow trout population by modifying regulations once kokanee survival recruitment recovers. Consider limited stocking of pure strain Gerrard rainbow from Kootenay Lake, B.C. to improve genetics.
			Kokanee	Conservation	Maintain harvest closure until kokanee survival and recruitment increases from critically low levels. Continue spawning habitat restoration efforts to re-establish wild kokanee. Continue hatchery enhancement efforts for kokanee to reduce the risk of wild kokanee collapsing and restore a consumptive fishery.
			Bull trout	Conservation/ Trophy	Maintain harvest closures in tributary streams and lake, protect critical habitat, educate anglers to reduce unintentional harvest of bull trout, increase enforcement to reduce poaching and remove non-native fishes that compete directly with bull trout. Investigate a limited harvest fishery on strong stocks of bull trout.
			Cutthroat trout	Quality/Wild	Evaluate if harvest is limiting cutthroat production and restrict harvest if necessary. Maintain restrictive regulations on selected tributary streams used by adfluvial fish to maximize production of wild fish for the lake. Maintain limited consumptive fishery for cutthroat trout in tributaries not used by adfluvial trout.
			Lake trout Brook trout	General	Maintain maximum harvest opportunity in the lake and tributary streams to keep lake trout and brook trout at low levels. Investigate other methods of removing these species.
			Lake Superior whitefish Mountain whitefish Brown trout	General	Encourage increased utilization of Lake Superior whitefish to offset reduced limits on other species.
			Largemouth bass Smallmouth bass Northern pike Black crappie Yellow perch	General	Maintain existing warmwater fisheries where they will not interfere with salmonid management programs.

Clark Fork River and tributaries	11/	Coldwater	Bull trout Cutthroat trout Rainbow trout Kokanee  Brown trout Mountain whitefish	Conservation Quality/Wild General/Trophy Conservation  General	Same management direction for bull trout, cutthroat trout, rainbow trout and kokanee as in Pend Oreille Lake. Manage to achieve a 0.5 trout/h catch rate. Cooperate with Avista, U.S. Fish and Wildlife Service and Montana Fish Wildlife and Parks to re-establish fish passage at Cabinet Gorge Dam. Enhance fish habitat in the Clark Fork River. Evaluate if brown trout are competing with bull trout for limited spawning and rearing habitat in Twin Creek. Prioritize bull trout. Evaluate kokanee returns to Twin Creek relative to the Cabinet Gorge Hatchery ladder to determine if Twin Creek will be a better egg collection site.
Pend Oreille River	26/8,760	Mixed	Rainbow trout Brown trout Cutthroat trout Largemouth bass Smallmouth bass Black crappie Yellow perch Bluegill Pumpkinseed Bullhead	General	Modify water level management of Albeni Falls Dam to reduce impacts on fish habitat. Investigate other habitat enhancement measures, such as subimpoundments in selected bays to reduce habitat related impacts during drawdown years. Work with Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Kalispel Tribe, U.S. Forest Service and Corps of Engineers to evaluate establishing fish passage at Albeni Falls Dam on the Pend Oreille River.
Hoodoo Creek	11/	Coldwater	Brown trout Brook trout Rainbow trout	General	Work with riparian landowners and angling groups to restore instream and riparian habitat and allow fishing access through private property.
Priest Lake and tributaries	100/23,360	Coldwater	Cutthroat trout   Bull trout  Kokanee  Lake trout  Brook trout	Conservation   Conservation  Conservation  General  General	Maintain wild cutthroat trout stocks by protecting adult fish in the lake with no harvest regulations. Provide a limited consumptive harvest of wild cutthroat trout in selected tributary streams by encouraging anglers to fish resident populations above barrier falls rather than adfluvial stocks that produce fish for the lake.  Maintain harvest closures in lake and tributary streams.  Conserve remnant kokanee population with harvest restrictions to provide stocks for rebuilding a kokanee fishery. Implement more liberal limits on lake trout to reduce impacts to native cutthroat trout and bull trout. Evaluate if lake trout can be suppressed with angler harvest alone, or if commercial harvest will be needed. Maintain consumptive fishery in tributaries to reduce brook trout abundance and offset harvest restrictions on adfluvial cutthroat trout streams.
Upper Priest Lake and tributaries	50/1,400	Coldwater	Cutthroat trout Bull trout  Lake trout Brook trout  Kokanee	Conservation   Wild	Manage the lake with catch-and-release regulations to preserve remaining populations of adfluvial cutthroat trout and bull trout. Prevent lake trout from entering Upper Priest Lake by blocking their migration through the Thorofare. Suppress lake trout with periodic intensive gill netting if the Thorofare weir is successful. Remove brook trout from tributary streams where feasible.

Priest River and tributaries	120/	Coldwater	Cutthroat trout Brook trout Brown trout Mountain whitefish  Bull trout	General  Conservation	Encourage appropriate agencies to evaluate changes in water level management of Priest Lake to enhance fishery flows in Priest River. Direct anglers to Priest River tributaries to provide consumptive trout fishing opportunities for brook trout.  Maintain harvest closure in river and tributary streams. Determine critical habitat.
Freeman Lake	/30	Mixed	Rainbow trout  Tiger muskie  Largemouth bass Black crappie Yellow perch Pumpkinseed Bullhead Channel catfish	Put-and-take trout  Trophy  General	Stock put-and-take rainbow trout to provide a spring, fall and winter trout fishery. Maintain tiger muskie stocking to provide a specialized trophy fishery.  Enhance the diversity of the warmwater fishery with maintenance stocking of channel catfish.
Kelso, Little, Round, Granite lakes	/100	Mixed	Rainbow trout  Largemouth bass  Black crappie Yellow perch Bluegill Pumpkinseed Bullhead	Put-and-take trout  Quality  General	Provide a trout fishery in Kelso Lake by stocking put-and-take rainbow trout. Out-migrants from Kelso Lake provide limited trout fisheries in Little Round and Granite lakes, but water quality limitations preclude put-and-take trout stocking. Provide a quality largemouth bass fishery for small lake anglers with a slot limit regulation.
Cocolalla, Round, Blanchard (Stoneridge Reservoir), Jewel lakes	/990	Mixed	Rainbow trout  Cutthroat trout Brook trout Brown trout Largemouth bass Black crappie Yellow perch Bluegill Pumpkinseed Channel catfish Bullhead	Put-and take trout  General	Maintain trout fisheries in Round, Jewel and Blanchard lakes by stocking put-and-take rainbow trout. Maintain trout fisheries in Cocolalla Lake by stocking fingerling cutthroat and rainbow trout.  Monitor the bluegill and perch population in Jewel Lake to see if additional warmwater predators will be needed to improve the warmwater fishery. Enhance the diversity of the warmwater fishery in Cocolalla Lake with maintenance stocking of channel catfish.

Spirit Lake and tributaries	10/1,477	Mixed	Kokanee Rainbow trout Cutthroat trout Brook trout Largemouth bass Northern pike Black crappie Yellow perch Bluegill Pumpkinseed Bullhead	General	Maintain a kokanee fishery by supplemental stocking and restricting seasons and limits when necessary. Monitor kokanee population abundance to determine if kokanee management goals are being met.  Provide a trout fishery by stocking fingerling cutthroat trout.  Maintain the existing fishery for warmwater species.
Shepherd and Gamble lakes	/250	Warmwater	Tiger muskie  Largemouth bass Black crappie Yellow perch Bluegill Pumpkinseed Bullhead	Trophy  General	Maintain tiger muskie stocking in Shepherd Lake to provide a specialized trophy fishery.
Blue Lake	/120	Warmwater	Tiger muskie  Largemouth bass Northern pike Black crappie Yellow perch Pumpkinseed Bullhead Channel catfish	Trophy  General	Maintain tiger muskie stocking in Blue Lake to provide a specialized trophy fishery. Work with private landowners to ensure continued public access.  Channel catfish will persist in Blue Lake during this planning period, but maintenance stocking was shifted to Freeman Lake to provide a better fishery.
Mirror Lake	/90	Coldwater	Rainbow trout Kokanee Cutthroat trout Brook trout	General	Maintain a consumptive trout only fishery by stocking fingerling rainbow trout and kokanee fry. Cutthroat and brook trout will persist during this planning period, but management will shift to rainbow and kokanee. Seek ways to enhance angler access.
Alpine Lakes (13 in the Pend Oreille River drainage)	/150	Coldwater	Cutthroat trout Rainbow trout Brook trout Golden trout Grayling	General	Provide fisheries that are consistent with lake productivity and angler pressure. Use westslope cutthroat trout for cutthroat trout stocking and sterile disease-free rainbow trout. Reserve some lakes for specialty fish (golden trout and grayling) only. Do not stock lakes that are currently fishless in order to maintain some natural alpine lakes.